

# **Woonasquatucket River Watershed Council (WRWC)**

## **Annual Report to The Rhode Island Rivers Council**

### **October 2002**

#### **Summary**

The Woonasquatucket River Watershed Council (WRWC) is a nonprofit organization working to restore the Woonasquatucket River and the communities that make up its watershed. The WRWC obtained 501(c)(3) nonprofit status in December of 2001. The organization is made up of representatives from the six watershed communities, North Smithfield, Smithfield, Glocester, Johnston, North Providence, and Providence. Our mission is to “encourage, support, and promote the restoration and preservation of the Woonasquatucket River watershed as an environmental, recreational, cultural, and economic asset of the State of Rhode Island.”

Over the past year, the WRWC has worked hard to broaden and diversify support, build partnerships, and help develop and launch collaborative initiatives in the watershed. These initiatives include working with the Rhode Island Department of Environmental Management (RIDEM) on a greenspace planning project in the Woonasquatucket, modeled after a similar effort conducted recently in South County, working with the Narragansett Bay Commission (NBC) on a water quality monitoring program with elementary school classrooms in the watershed, as well as supporting NBC’s “urban river restoration initiative.” We also partnered with the Northern Rhode Island Conservation District on a poster contest and tree planting project, collaborated on a community greenspace survey with the Town of Smithfield and worked with community groups on two river cleanups this year. The WRWC helped RIDEM secure a Smart Growth grant from the Environmental Protection Agency to review and recommend zoning and land use ordinances along the river corridor in Providence. The WRWC will work with RIDEM, a consultant, the Olneyville Housing Association, Smith Hill Community Development Corporation, and the City of Providence to implement this project in the coming year.

The \$10,000 grant awarded to the WRWC through the legislative grant secured by the RI Rivers Council was critical to our ability to operate and move forward this year. As is shown in the financial report attached, the funds were used for operating expenses such as rent and telephone, as well as printing and postage for newsletter production and distribution. The WRWC also successfully leveraged the \$10,000 legislative grant to secure a 1) \$1,000 legislative grant from Representative Gary Hogan of Smithfield, 2) third grant from The Rhode Island Foundation for \$25,000 for 2003 operating expenses, and 3) \$20,000 grant from the Partnership for Narragansett Bay to conduct a wetland restoration project in Smithfield.

## 1) Organizational Status

The Woonasquatucket River Watershed Council (WRWC) continues to work to expand and diversify Board membership and strengthen our capacity to identify and achieve locally-driven goals for the watershed. Over the past year, the WRWC has settled into its new and independent offices along the River in Providence, worked with a bookkeeper to set up and maintain accurate financial records and systems, begun the process of strategic planning for the organization, and nominated a new member to the Board, while continuing restoration efforts in the watershed.

The WRWC has formed a nominating committee and is working hard to recruit new members that reflect a diversity of interests and expertise. The latest addition to the Board is Daniel Brown from Johnston. Mr. Brown is also a member of the Johnston Historical Society, bringing a wealth of knowledge about the town and the state from a historical preservation perspective. Below is the current list of WRWC Board Members:

<u>Name</u>	<u>Watershed Community</u>
Jane Sherman, Chair	Providence
Donald Driscoll, Vice-Chair	Glocester
Bruce Hooke, Treasurer/Secretary	Providence
Maurice Bourget	North Smithfield
Daniel Brown	Johnston
Donald Burns	Smithfield
Jean Lynch	Johnston
Paul McElroy	North Providence

The WRWC meets the first Tuesday of every month at 5:30pm. Other active participants at these meetings include Eugenia Marks, Audubon Society of Rhode Island, Fred Presley, RIDEM Northern Region Watersheds Coordinator, and Johanna Hunter, River Navigator for the Blackstone/Woonasquatucket American Heritage Rivers.

## 2) Summary of Activities

In 2002, the WRWC worked with local, state, and federal partners to advance goals in the areas of Watershed Restoration, Planning, Outreach/Increasing Watershed Awareness, and Institutional Strengthening. The WRWC:

### ***Watershed Restoration***

- **Secured \$20,000 in funding from the Partnership for Narragansett Bay for a wetland restoration project at Deerfield Park in Smithfield.**

This project was identified as a restoration opportunity in the University of Rhode Island/RI DEM study that inventoried potential wetland projects in the watershed. The project will be a partnership among WRWC, the Town of Smithfield, PNB, Kleinschmidt Associates, RI DEM, and potentially the U.S. Fish and Wildlife Service. We are hoping to use this project to demonstrate the benefits of wetland restoration to encourage participation from private landowners on future projects.

- **Conducted in-river cleanups with Narragansett Bay Commission and community organizations and residents.**

The WRWC conducted in-river cleanups in April and September and also assisted NBC with their efforts as part of NBC's urban river restoration initiative. With financial support through RI DEM's Earth Day grant program and an \$800 donation from the Providence Place Mall, the WRWC was able to hire a professional tree service at the April cleanup to remove over 30 shopping carts at one site along the River in Olneyville. Volunteers pulled out hundreds of tires, shopping carts and other large debris as part of these cleanup efforts.



- **Promoted Land Acquisition Efforts**

In the spring of 2001, the RI DEM worked to remove thousands of tires from property along the Woonasquatucket River in Johnston, an urbanized community in the watershed. When it became known that the property owner was considering selling the property, the RI DEM Watershed Coordinator, the WRWC Director, a WRWC member from Johnston, and a representative from the Audubon Society, arranged a meeting with the lawyer for the property owner to discuss options for acquiring the property. The area is approximately 22 acres and could serve as sorely needed recreation and open space for the community as well as provide a natural and protective buffer for the River in an industrial area. A second meeting was held with the Mayor of Johnston who supported pursuing acquisition of the property. With assistance and support from the WRWC, the Town Planner submitted an application to the State's Open Space Grant program for funding to purchase the property.

In the spring, the WRWC held a forum for the Land Trusts in the watershed to introduce the Council and talk about the upcoming greenspace planning project. The Land Trusts have a varying degree of experience and one benefit of the forum was to give the organizations an opportunity to learn from each other and identify potential land acquisition projects that cross town boundaries.

### ***Planning***

- **Greenspace planning project**

Through a grant from the USDA Forest Service awarded to RI DEM, a consultant was hired to work with Woonasquatucket watershed communities to develop a greenspace planning strategy for the region. The WRWC was written into the grant to conduct outreach, organize community meetings and increase participation in the

process. The kick off meeting was held in October, and 3-4 meetings in each community will be held over the next several months.

- **Smart Growth grant**

The WRWC worked with RI DEM to submit an application to EPA for a Smart Growth grant. A grant for \$45,000 was awarded (one of only nine in the country) to hire a consultant to review current zoning and land use ordinances for the river corridor in Providence and recommend changes that will promote land use more compatible with neighborhood plans and River protections. The WRWC will work with the consultant to incorporate neighborhood planning and visioning efforts and promote the final recommendations with city officials.

- **Economic Initiatives**

We facilitated two regional economic initiatives in the watershed this year. We met with planners from our northern communities (North Smithfield, Glocester and Smithfield) to encourage and help coordination of their submission of a joint proposal to the Transportation Improvement Program for bike path planning. Glocester and North Smithfield (along with Burrillville) submitted a joint request for funding of a Planning and Design Feasibility study of a bicycle path in their communities that will link to the Woonasquatucket River Greenway, the Blackstone Valley bicycle path and the North South Trail.

With Providence and Johnston, we facilitated discussions leading to a request for Enhancement funding for Heritage markers along the Woonasquatucket River. The planning for these transportation initiatives will include public input from the local communities, the RI Greenway Alliance and other interested parties, and we expect that a preliminary route will be established through the Greenspace Planning initiative discussed below.

In Providence, the Director and Chair met with members from the Olneyville Housing Association and the Smith Hill CDC to offer our services as a facilitator in the development of an economic development plan for these watershed neighborhoods that utilizes the River corridor as the stimulus for economic revitalization and investment. This meeting linked partners and created an action list for pursuing this initiative.

The WRWC helped facilitate Smithfield's successful application to the U.S. Department of Agriculture for a \$50,000 technical assistance grant to enhance and maintain manufacturer's economic presence in the community.

### ***Outreach/Increase Watershed Awareness***

- **Poster Contest**

To reinforce health and environmental messages taught to students in the Environmental Protection Agency-sponsored "Do's and Don'ts" education program, the WRWC partnered with the Northern RI Conservation District to conduct a watershed-wide poster contest in third and fourth grade classrooms. The students were asked to create their vision for a healthy Woonasquatucket River and depict ways people can help achieve that vision. Sixteen classrooms participated in the event reflecting four of the watershed communities. Judging took place at the WRWC office and two winning posters were selected. The winning classrooms were awarded

a “Rooting for Revitalization” field day in Merino Park. Sixty students and their teachers spent the morning at Merino Park by the Woonasquatucket River and heard tree experts talk about why plants and trees are important for improving water quality and providing wildlife habitat. Under the guidance of volunteers from the RI Tree Council, each student then planted a tree donated to the WRWC by the National Tree Trust and marked it with a wooden stake that he or she had designed and labeled.



- **Water Quality Monitoring project**

The WRWC is working with the Narragansett Bay Commission on their water quality monitoring project with six elementary school classrooms from watershed communities. The kick off for the project was October 18 where approximately 170 students were introduced to the watershed and basic elements of water testing. Throughout the school year, the classrooms will sample at a designated site and keep track of their results. In the spring, all the classes will come together to share and compare results. We are also hoping to identify ways to incorporate this type of project into schools’ science curriculum so that it can become a continuing program.

- **Banner Event**

To celebrate the striping of the bike lane along the River on Promenade and Kinsley Avenue in Providence, the first segment of the Woonasquatucket River Greenway, over twenty community groups and organizations helped paint banners with anti-littering and bike safety messages. Volunteers came out for a River cleanup and barbecue and the banners were displayed along the River.



- **Greenspace surveys**

The Town of Smithfield wrote the WRWC into a grant they received from the Blackstone Heritage Corridor to conduct a community survey about greenspace issues. The WRWC helped develop and distribute the survey to 1,500 residents. The WRWC modified the survey and distributed it to Providence residents at a Providence mayoral debate on the environment. The information from both surveys will be incorporated into RI DEM's Greenspace Planning effort.

- **Annual Celebration**

We are currently preparing for our second annual river celebration "Take me to the River" (Nov. 15, 2002) to increase awareness to our efforts, thank volunteers and raise additional unrestricted funds.

***Institutional Strengthening***

- **Interns and Volunteers**

Thanks to Professor Harold Ward of Brown University, the WRWC had the opportunity to work with three Brown University students in the spring semester to map access points along the River where dumping may be occurring. The students were stunned by the contrast between the more rural sections of the River and the urbanized segments where tires, shopping carts, and other large debris are abundant. In addition to the map, the students made policy recommendations on how to address the intrinsic, widespread problem of tire disposal. The map will also serve to identify potential boat launch sites for future recreation plans. The students reported their findings to the WRWC at our May meeting.

The WRWC also hired a summer intern from Brown University who was instrumental in a variety of projects including the production of our newsletter. Bruce Hooke, the Secretary/Treasurer and webmaster for the WRWC, added a section to our website where people can sign up to volunteer. We got several names through this method and are promoting our website whenever possible to attract more interest. The WRWC is identifying ways to maintain and promote the critical assistance of interns and volunteers and keep volunteers engaged in our efforts.

- **Funding**

This year, the WRWC was successful in obtaining financial assistance from the Town of Smithfield for \$2,000. We were also written into their greenspace survey grant proposal for over \$3,000. In addition to the \$10,000 legislative grant received through the RI Rivers Council, the WRWC received a \$1,000 legislative grant from State Senator Gary Hogan from Smithfield. We also obtained a \$20,000 grant from the Partnership for Narragansett Bay to conduct a wetland restoration project and assisted RI DEM in obtaining a \$45,000 "Smart Growth" grant for work along the River corridor in Providence. RIDEM provided earth day grants again this year which were extremely helpful to our river cleanup activities.

### **3) Organization Action Plan 2003**

#### **A. Watershed Restoration**

### **Implementation of the Watershed Action Plan**

The WRWC will continue to play an active role in the implementation of community-driven priority projects identified in the Watershed Action Plan. In 2003, the WRWC will administer the \$20,000 grant from the Partnership from Narragansett Bay to obtain wetland restoration designs for the site at Deerfield Park in Smithfield. We will use the grant to leverage other funds to implement the restoration work. The WRWC will also utilize funds awarded through a Five Star Restoration Grant from the National Fish and Wildlife Foundation to implement a riverbank restoration project at the Riverside Mills site in Providence. This project has been delayed twice due to additional remediation work required at the site.

### **Pursuing design and implementation funding for riparian and wetland restoration projects.**

The WRWC has a report from Kleinschmidt Associates listing 36 potential riparian buffer restoration projects in the watershed. In this report, the consultants describe low, moderate, and high cost restoration projects per site ranging from under \$15,000 to over \$100,000. The University of Rhode Island and RI DEM is also nearing completion on the wetland restoration project inventory for the watershed. Armed with these two reports, the WRWC will continue to pursue funds for design and implementation of riparian and wetland restoration projects.

### **Smart Growth grant**

The WRWC will work with RI DEM on the EPA “Smart Growth” grant to review current zoning and land use in the River corridor in Providence. The WRWC will help the consultant incorporate neighborhood planning and visioning efforts and promote the final recommendations with city officials.

### **Fish Restoration**

The WRWC has submitted a grant to American Rivers/NOAA to fund a “Lower Woonasquatucket River Anadromous Fish Restoration Feasibility and Design Study.” If the grant is awarded, we will work with a consultant and project partners to implement the project.

## **B. Planning**

### **Assist in the Development of a Greenspace Implementation Strategy**

The WRWC will be working with RI DEM and Dodson Associates to conduct greenspace planning in the watershed. The project was officially launched in October 2002 and community meetings will be held over the next several months when participants will identify and map natural, recreational, and historical sites in their neighborhoods.

The Greenspace Project will develop a collaborative process to identify valuable recreational and cultural resources, and propose intra- and intercommunity linkages between them. The upper river communities' strategies may focus on land protection and conservation issues, while the more urban communities will need to focus more on restoration and implementation of resources. The planning process will complement the

internal effort each town is making to update their comprehensive plan. Inclusion of watershed goals and projects will signal a new approach to planning for their growth in the broader regional context of the watershed.

### **C. Outreach/Increase Watershed Awareness Water Quality Monitoring Project**

The WRWC is working with the Narragansett Bay Commission on their water quality monitoring project with six elementary school classrooms from watershed communities. The kick off for the project was October 18 where approximately 170 students were introduced to the watershed and basic elements of water testing. Throughout the school year, the classrooms will sample at a designated site and keep track of their results. In the spring, all the classes will come together to share and compare results. We are also hoping to identify ways to incorporate this type of project into schools' science curriculum so that it can become a continuing program.

### **Newsletter/Volunteer maintenance**

We produced and distributed a newsletter over the summer that highlighted events and activities. We are currently working on developing and maintaining an improved database for our mailing list. We are also focusing on strategies to engage and maintain our active volunteers. In the coming year, we are aiming to distribute two newsletters and maintaining contact with volunteers through email and/or holding an event.

### **Conduct and Support Watershed Events**

In the coming year, the Council will continue to promote and assist community efforts to raise watershed awareness through clean-ups, educational programs, and other local initiatives. In November, we will be working with community groups to hold a fall festival at Donigian Park near the River. We're also holding a second annual River celebration on November 15 in Olneyville to bring attention to our efforts.

### **Institutional Strengthening Workshops**

The WRWC is excited about the opportunity to attend workshops organized by the RI Rivers Council to help build the capacity of watershed organizations. The WRWC is sending at least one representative to each workshop and will work hard to incorporate lessons learned and develop strategies based on workshop exercises to improve our effectiveness as we evolve.

### **Increase and Diversify Funding Base**

We are grateful to the RI Rivers Council for pursuing and securing a second legislative grant that will be distributed among the WRWC and the other designated councils to help defray operating costs in the coming year. We are working hard to devise a fundraising strategy that will sustain our organization in the coming years.

## **4) Status of the Woonasquatucket River Watershed**

*(Sources include: Woonasquatucket River Watershed Action Plan)*



The Woonasquatucket River watershed is located in the north-central part of the State of Rhode Island. The basin encompasses all of the Town of Smithfield, part of the Towns of North Smithfield and Glocester, part of the Cities of North Providence and Johnston, and approximately one third of the City of Providence. The Woonasquatucket River drains an area of approximately 51.9 square miles. It is about 19 miles long, dropping over 200 feet in its descent.

The Woonasquatucket River rises in the Town of North Smithfield near Primrose Pond. After flowing to the south for approximately 2.5 miles, it enters the Stillwater Reservoir (formerly known as the Woonasquatucket Reservoir). The Woonasquatucket River then flows into the Georgiaville Pond before flowing through the Villages of Esmond and Centerdale. The river flows through several more reservoirs and old mill ponds in Smithfield, North Providence, and Providence. At its confluence, the river combines with the Moshassuck River in downtown Providence (downstream of Waterplace Park), forming the Providence River.

The Woonasquatucket River watershed contains several ponds, lakes, reservoirs, and impoundments. The watershed also contains a moderate amount of wetlands, which are drained by perennial streams. The principal tributaries to the Woonasquatucket River are the Nipsachuck Swamp, Stillwater River, Nine Foot Brook, Latham Brook, Shinscot Brook, and Reaper Brook. Several of the tributaries that drain into the Stillwater Reservoir also contain reservoirs: Waterman Reservoir, Sprague Upper Reservoir, Sprague Lower Reservoir, Mountindale Reservoir, and Slack Reservoir.

Approximately 8.5 miles of the Woonasquatucket River are impaired, contaminated with heavy metals, PCB's and other remnants of the industrial past. In 2000, a segment of the river was placed on the National Priorities List of the Superfund program. River sediment contaminated with dioxin (TCDD 2,3,7,8) extends for 8 miles, and warnings about fish consumption are posted in three river communities. Long-term remedial actions are not yet identified. In urban areas, Brownfields and industrial sites line the river and nineteen combined sewer overflows deposit high levels of fecal coliform and sewage waste into the Woonasquatucket River after heavy rainstorms.

A miniscule 3.8% of the wetlands in the watershed are protected. In spite of these conditions the river corridor supports wildlife even in our most urban areas. Great blue heron can be seen along the length of the river, and neighbors have identified over 100 species of birds in a riverside park in Providence.

### **Segment Classifications**

In accordance with the River Policy and Classification Plan, Rhode Island Rivers Council has designated the following segment classifications for the Woonasquatucket River:

- Waterman Reservoir, Stillwater Reservoir, and Georgiaville Pond are suitable and used for swimming and boating. The numerous other impoundments along tributaries in the Greenville and Georgiaville areas of Smithfield (Slack, Upper and Lower

Sprague, Woonasquatucket Reservoirs) are also designated as recreational and are suitable for swimming and boating. (Recreational Open Space)

- The Woonasquatucket River, from Georgiaville Pond to the Smithfield/North Providence line, is designated for recreational multiple use. The permitted discharge from the Smithfield Wastewater Treatment Facility enters this segment of the river just north of the North Providence town line. (Recreational Multiple Use)
- The Woonasquatucket River from the Smithfield/North Providence line to the dam at Doningian Park (where the river becomes tidal) is a recreational multiple use river. This area is also influenced by the permitted discharge from the Smithfield Wastewater Treatment Facility and Combined Sewer Overflows in the Providence area. It is suitable for non-contact recreational activities. Dyerville State Park is located along the Johnston/Providence segment. Resources include the development of a greenway and developments on brownfield sites. A diversity of wetlands provides habitat for urban flora and fauna with rare plant species along an adjacent railroad right-of-way. (Recreational Multiple Use) The Woonasquatucket River has been classified as follows:
- Class B from the headwaters (including Stillwater River, Stillwater Reservoir, Waterman Reservoir, Sprague and Lower Sprague, Slack Reservoir, Mountindale Reservoir, and Georgiaville Pond to Esmond Hill Drive. Class B waters are suitable for fish and wildlife habitat; primary and secondary contact recreation; and are compatible for industrial processes, cooling, hydropower, aquaculture, agriculture, irrigation and navigation. In addition, Class B waters have good aesthetic value.
- Class B1 from Esmond Hill Drive in Smithfield to CSO located at Glenbridge Avenue in Providence. Class B1 waters have the same designated uses as Class B waters. However, the primary contact recreation may be impacted by pathogens from approved wastewater facilities (i.e., Smithfield WWTF).
- Class B1 {a} from Glenbridge Avenue to its confluence with the Moshassuck River. Class B1 {a} waters have the same designated uses as Class B1 waters. However, these waters have a partial use designation due to impacts from combined sewer overflows (CSOs). Partial use for CSOs is defined as follows (RIDEM, 1997, p.12):

“These waters will likely be impacted by combined sewer overflows in accordance with approved CSO Facilities Plans and in compliance with rule 19.E.1 of these regulations and the Rhode Island CSO Policy. Therefore, primary contact recreational activities, shellfishing uses and wildlife habitat will likely be restricted.”

RIDEM has not specifically classified any waterbodies in the watershed as Class A. However, some unclassified waterbodies may be considered Class A in accordance with Water Quality Regulations. The Regulations state that unclassified waterbodies hydrologically connected by surface waters upstream of Class B and B1 waters are

considered Class B. Waterbodies not hydrologically connected by surface waters and not specifically classified are considered Class A (RIDEM, 1997).

The State's 1998 303(d) List of Impaired Waters cite the following water quality concerns in the Woonasquatucket River and its tributaries: pathogens, PCBs, heavy metals (such as copper, lead, and mercury), and biodiversity impacts. Presented below is a list of waterbodies within the Woonasquatucket River basin identified in the 303(d) list:

- Latham Brook - Biodiversity impacts;
- Woonasquatucket River - Biodiversity impacts, pathogens, PCBs, dioxin, metals (Cu, Pb, Hg); and
- Nine Foot Brook - Biodiversity impacts